

DETAILED ACTION

Response to Amendment

1. Applicant is reminded they need to explicitly point out where support for all the newly claimed features comes from as required by MPEP 714.02 and 2163.06. See 37 CFR 1.111.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 7 has been amended to include the phrase, "projections that can alternatively move the high adhesion sections" is unclear. The term "alternatively" is used to describe a single function of the apparatus. What is the alternative of this function? Alternatively to what? The specification does not describe this function. The drawings do not clarify this limitation. Clarification is required. Dependent claims 2-6 and 8-10 are rejected due to dependency on independent claim 7.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication No. 02-172709 to Uesugi et al. (machine translation provided) in view of Japanese Patent Application Publication No. 05-220865 to Adachi et al. (machine translation provided) and International Patent Application Publication No. WO 02/102579 to Suda.

6. As to claim 4, Uesugi et al. discloses the high adhesion sections in at least the leading end application region have outer surfaces in the form of mirror-finished surfaces (See Abstract).

7. As to claim 5, this claim is not found to structurally limit the current invention. The method of forming the mirrored surface does not structurally alter the mirrored surface. Uesugi et al. discloses the mirror-finished surfaces are formed as high-adhesion surfaces (See paragraph 0021), which requires the same physical characteristics to perform the same function as that recited by applicant. Consequently, Uesugi's disclosure of a high-adhesion mirror-finished surface appears to be the same as the plated mirror surface of applicant's disclosure. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983).

8. As to claim 6, Uesugi et al. discloses the low adhesion sections and the high adhesion sections in at least the leading end application region are arranged alternately in the axial direction (See Figure 1).

9. With respect to claim 7, Uesugi et al. discloses a molding drum, including a transfer drum having a circumferential direction and a width direction, the width direction being substantially perpendicular to the circumferential direction, and; said transfer drum being provided, on its outer peripheral surface, with a leading end application region, and a plurality of application regions following said leading end application region and arranged in the circumferential direction of the transfer drum, said application regions being divided into a plurality of low adhesion sections with a low adhesion force, and a plurality of high adhesion sections with a high adhesion force, said low adhesion sections and said high adhesion sections being alternately arranged in the width direction of the transfer drum; radial expansion/contraction means; said radial expansion/contraction means that can alternatively move the high adhesion sections radially inwards of the low adhesion sections (See Abstract, and paragraphs 0017-0030, and Figures 1-4). Uesugi et al. does not specifically disclose the high adhesion sections connected to projections that can alternatively move the high adhesion sections radially inwards of the low adhesion sections or a receiver drum.

10. Adachi et al. discloses a molding drum, including the high adhesion sections (21) connected to projections (23) that can alternatively move the high adhesion sections radially inwards of the low adhesion sections (25; See paragraphs 0007-0010). It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the projection movement means taught by Adachi et al. with the drum of Uesugi et al. The motivation would have been to allow for regulated radial movement of the sections.

11. Suda discloses an apparatus for forming tire components including a receiving roller (11) capable of rotating in an opposite direction to the transfer drum (12; See Figures 1 and 3-1-4-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the receiving roller taught by Suda with the molding drum of Uesugi et al. The motivation would have been to safely and efficiently remove the formed tire component from the molding drum.

12. Examiner notes the phrases, “forming the sheet member by applying the plurality of strip members onto an outer peripheral surface of the transfer drum so that the width direction of each strip member is oriented in the circumferential direction of the transfer drum”, “forming the cylindrical tire constitutive member by joining the leading end and the trailing end of the sheet member which has been transferred from the transfer drum, with the transfer drum urged against the receiver drum and the receiver drum rotated in an opposite direction to the transfer drum”, “applying a strip member forming the leading end of the sheet member”, “wherein when the sheet member is transferred from the transfer drum and applied to the receiver drum, the high adhesion sections move radially inwards of the low adhesion sections so that the sheet member is held solely by the low adhesion sections and when the sheet member is being held on the transfer drum, the sheet member is held in place mainly by the high adhesion sections” are considered intended use of the current apparatus. The examiner would like to note that

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while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997); “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original). A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114. This rejection is based on the fact the apparatus structure taught above has the inherent capability of being used in the manner intended by the Applicant.

13. As to claim 8, Uesugi discloses the plurality of application regions are arranged at a predetermined pitch in the circumferential direction of the transfer drum (See Figures 1-4).

14. As to claim 9, Uesugi et al. discloses radial expansion/contraction means for moving the high adhesion sections radially inwards of the low adhesion sections, the high adhesion sections and low adhesion sections being capable of being flush with each other when the narrow strip members are applied to the transfer drum, and the high adhesion sections being moved by the radial expansion/contraction means radially inwards of the low adhesion sections, when the sheet member is transferred from the transfer drum to the receiver drum; and the radial expansion/contraction means

comprising collective expansion/ contraction means for moving radially inwards the high adhesion sections in the leading end application region and the application region adjacent thereto, respectively, and moving means for individually moving radially inwards the high adhesion sections in the remaining expansion regions (See Abstract, and paragraphs 0017-0030, and Figures 1-4).

15. Adachi et al. discloses a molding drum, including the high adhesion sections (21) connected to projections (23) that can alternatively move the high adhesion sections radially inwards of the low adhesion sections (25; See paragraphs 0007-0010). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the projection movement means taught by Adachi et al. with the drum of Uesagi et al. The motivation would have been to allow for regulated radial movement of the sections.

16. Examiner notes the phrases, “for moving the high adhesion sections radially inwards of the low adhesion sections, said high adhesion sections and low adhesion sections being flush with each other when the narrow strip members are applied to the transfer drum, and said high adhesion sections being moved by said radial expansion/contraction means radially inwards of the low adhesion sections, when the sheet member is transferred from the transfer drum to the receiver drum”, “being flush with each other when the narrow strip members are applied to the transfer drum”, “when the sheet member is transferred from the transfer drum to the receiver drum”, “or moving radially inwards the high adhesion sections in the leading end application region and the application region adjacent thereto, respectively”, and “for individually moving

radially inwards the high adhesion sections in the remaining application regions” are considered intended use of the current apparatus. The examiner would like to note that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997); “[A]pparatus claims cover what a device is, not what a device does.” Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original). A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). See MPEP § 2114. This rejection is based on the fact the apparatus structure taught above has the inherent capability of being used in the manner intended by the Applicant.

17. Claims 2-3 rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication No. 02-172709 to Uesugi et al. (machine translation provided) in view of Japanese Patent Application Publication No. 05-220865 to Adachi et al. (machine translation provided) and International Patent Application Publication No. WO 02/102579 to Suda as applied to claims 4-9 above, and further in view of U.S. Patent No. 5,624,780 to Nishimori et al.

18. With respect to claim 2, Uesugi et al. discloses a molding drum, including low adhesion surfaces (30; See paragraph 0021). However, Uesugi et al. does not specifically disclose what material is used for the low adhesion surface.

19. Nishimori et al. discloses an image transfer roller, including using roller coated with a resilient material (i.e. silicone rubber) as a release surface to provide low adhesion (column 11, lines 4-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the resilient release material taught by Nishimori et al. with the molding drum of Uesugi et al. The motivation would have been to prevent sticking of the substrate to the drum.

20. As to claim 3, Uesugi et al. discloses a molding drum, including low adhesion surfaces (30; See paragraph 0021). However, Uesugi et al. does not specifically disclose what material is used for the low adhesion surface.

21. Nishimori et al. discloses an image transfer roller, including using roller coated with silicone rubber as a release surface to provide low adhesion (column 11, lines 4-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the silicone rubber release material taught by Nishimori et al. with the molding drum of Uesugi et al. The motivation would have been to prevent sticking of the substrate to the drum.

22. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication No. 02-172709 to Uesugi et al. (machine translation provided) in view of Japanese Patent Application Publication No. 05-220865

to Adachi et al. (machine translation provided) and International Patent Application Publication No. WO 02/102579 to Suda as applied to claims 4-9 above, and further in view of U.S. Patent No. 3,888,720 to Habert.

23. Uesugi et al. does not specifically disclose a collective expansion/contraction means comprising cam followers which are pivoted to the high adhesion sections, respectively, and movable radially inwards and outwards, a rotary cam which can be rotated to move the cam followers radially inwards and outwards, and cam driving means for rotating the rotary cam in the circumferential direction of the transfer drum.

24. Habert discloses a tire building machine including aid collective expansion/contraction means comprising cam followers which are capable of pivoting to the high adhesion sections, respectively, and capable of moving radially inwards and outwards, a rotary cam which can be rotated to move the cam followers radially inwards and outwards, and cam driving means for rotating the rotary cam in the circumferential direction of the transfer drum (column 2, lines 47-64; See Figure 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the expansion contraction means taught by Habert with the expanding/contracting molding drum of Uesugi et al. The motivation would have been to provide reliable means for expansion and contraction of the molding drum.

Response to Arguments

25. Applicant's arguments with respect to claims 2-10 have been considered but are moot in view of the new ground(s) of rejection. Applicant's remaining arguments are

drawn to the claims as amended. The amendment necessitated the new grounds of rejection. Applicant's remaining pertinent arguments are addressed below:

26. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

27. With respect to applicant's arguments that Suda does not disclose "the high adhesion sections connected to projections that can alternatively move the high adhesion sections radially inwards of the low adhesion sections, wherein when the sheet member is transferred from the transfer drum and applied to the receiver drum, the high adhesion sections move radially inwards of the low adhesion sections so that the sheet member is held solely by the low adhesion sections and when the sheet member is being held on the transfer drum, the sheet member is held in place mainly by the high adhesion sections", this argument is not persuasive. Examiner notes Uesagi, the primary reference is relied upon to teach high and low adhesion sections, not Suda. The current rejection of claims 4-9 is under 35 U.S.C. 103 (a) as obvious over Uesagi in view of Suda, not anticipation under 35 U.S.C. 102(b) over Suda. Suda is a secondary reference relied upon to teach a receiving roller. Therefore, this argument is not persuasive.

28. In response to applicant's argument that Uesagi discloses a different method of using a transfer drum, a recitation of the intended use of the claimed invention must

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result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Consequently, this argument is not persuasive.

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY K. MCCLELLAND whose telephone number is (571)272-2372. The examiner can normally be reached on 8:00 a.m.-5 p.m. Mon-Thr.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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